

Frontier Parkway Grade Separation Warrant Analysis (Summary)

- 1) Grade Separation Warrant Criteria procedures are established by the U.S. Department of Transportation, Federal Highway Administration in the *Railroad-Highway Grade Crossing Handbook*. Three criteria levels are outlined:
 - A) A typical grade separation warrant analysis based upon traffic volumes, roadway safety, and rail line operations
 - B) Same analysis as A above with slightly reduced warrant thresholds taking into account fully allocated life-cycle costs
 - C) Total intersection volume > 60,000 vehicles per day
- 2) Data used in these analyses were obtained from the NCTCOG regional travel demand forecasting model, data collected by the Town of Prosper, a City of Celina noise study evaluation, and current BNSF activity.
- 3) This analysis was performed for the year 2035 and indicates that grade separation warrants were not met using a typical warrant analysis in section A, one criteria (crossing exposure) is met in section B, primarily due to train blockage and not traffic conditions, and section C warrants are not met
- 4) Build-out data (beyond the year 2035) obtained from the Town of Prosper indicates a grade separation will ultimately be warranted

Frontier Parkway Grade Separation

- NCTCOG's Proposed Grade Separation Monitoring Strategy -

- 1) Continue with the proposed widening of Frontier Parkway, and preserve the right-of-way needed for a future grade-separated crossing over the BNSF
- 2) Design access to adjoining properties to accommodate a future grade separation
- 3) Begin a process to regularly monitor traffic, safety, and railroad operational conditions
- 4) Construct a grade separation when one or more of the warrant triggers are met from Section A of the grade separation warrant analysis
- 5) Monitor other potential at-grade crossings (i.e., in Light Farms development).

Current railroad policy requires the closure of at least one existing at-grade crossing for each new crossing. Grade separating the Frontier Parkway crossing could potentially serve as this closure.
- 6) Discussions should occur between BNSF and/or the land uses which result in train blockages to occur to determine if other solutions may exist (e.g., additional sidings)